

C: The third actor between the acoustician and the player (Antonio)

Greetings from Italy.

I was brought to your site by a google search (keywords: violin bow acoustics) I'm a low-end amateur mandolin and violin player and I'm not an acoustician, despite of my degree in Physics, but at the age of 58 I still wonder about how things work, and your site is a mine of useful information. The third actor I mean is the luthier. Classical luthiery does not seem to appreciate (at least in Europe) the scientific approach in violin making. They say that Stradivari was not a mathematician, and the efforts of Carleene Hutchins and company are regarded as a bizarre attempt in substituting the hyper-skilled experience of the violin maker with a booklet crowded of formulas. I think there is a part of truth in both those sayings, but I hope your site will help. It would be very fine if you could explain the results of scientific analysis in rigorous but not mathematical terms, so that (young) instrument makers could deal with it.

Best wishes,
Antonio

A: (Knut Guettler)

Hi Antonio!

I think your comment describes quite closely what my intention with the site is. It should be possible to convey much of the (in my mind) important scientific findings of the acoustical community to luthiers and players, without having to bring in all the mathematical fundament behind. Quite often it is enough to use commonly used expressions like "increasing nearly proportionally to" or "independent of" to describe a connection or the lack of it. Furthermore, I think it is important to demonstrate the practicalities of such findings in situations familiar to the reader. This is what I have tried to do in an "Unpublished" paper on "Onset-transient times", ready for presentation in my site in a day or two...

I don't think any acoustician believes that his/her findings could be substituting the skill of the qualified craftsmen, and the scientists I know all have the greatest respect for luthiers and musicians, even though the majority of the latter don't necessarily pay the respect back. But, we know that people like J. B. Vuillaume, F. Tourte, and many many others experimented intensely with their designs in order to produce the best possible instruments and bows. And so do many young luthiers of today. The efforts of the scientist are not so much to improve instruments (unless they happen to be educated luthiers themselves) as to understand and describe how well-functioning instruments are working. If the scientists are able to define the right questions they are undoubtedly better equipped to carry out meticulous experiments than most musicians and luthiers. However, the corrective will always be the musician at the other end.

Thank you for an inspiring comment!

Knut